

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER NO. R5-2010-XXXX

AMENDING CEASE AND DESIST ORDER NO. R5-2008-0054
(NPDES PERMIT NO. CA0078956)

CITY OF PLACERVILLE
HANGTOWN CREEK WATER RECLAMATION FACILITY
EL DORADO COUNTY

The California Regional Water Quality Control Board, Central Valley Region, (hereafter Central Valley Water Board) finds that:

1. On 25 April 2008, the Central Valley Water Board adopted Waste Discharge Requirements (WDR) Order No. R5-2008-0053 and Cease and Desist Order (CDO) No. R5-2008-0054, prescribing waste discharge requirements and compliance time schedules, for the City of Placerville Hangtown Creek Water Reclamation Facility, El Dorado County. For the purposes of this Order, the City of Placerville is hereafter referred to as "Discharger" and the Water Reclamation Facility is hereafter referred to as "Facility".
2. The Discharger operates the Facility as the residential and municipal sewage treatment facility for the City of Placerville and a small portion of El Dorado County with discharge of treated wastewater to Hangtown Creek.
3. WDR Order R5-2008-0053 contains, in part, compliance schedules for final effluent limitations for copper and zinc, with final compliance required by 18 May 2010. Since the adoption of WDR Order R5-2008-0053, the Discharger has completed construction of \$45 million upgrades of the Facility that were put into operation on 1 March 2009. Since the recent completion of Facility upgrades, the limited number of laboratory results indicate that the discharge continues to exceed the final effluent limits for copper and zinc in Order R5-2008-0053.
4. The Discharger submitted an infeasibility report and request for compliance schedule extensions for copper and zinc. The Discharger reports that copper and zinc can originate from several sources, including domestic water supplies, domestic and non-domestic wastewater, infiltration/inflow, sediment, and the wastewater treatment processes. The wastewater collection system receives wastewater from residential and commercial users. There are no significant industrial users. The Discharger proposes the following activities to address permit compliance for copper and zinc:
 - a. Continued Treatment Plant Performance Testing and Optimization. The Facility requires 12 months of performance testing to optimize the treatment processes and determine the effect of the improvements on effluent quality.
 - b. Additional Effluent Quality Monitoring and Data Evaluation. Additional monitoring throughout all seasons is needed to confirm effluent concentrations and pollutant sources for copper and zinc and determine whether additional operations or treatment modifications are needed to comply with limitations.

- c. Compliance Response Planning and Implementation. If necessary, the Discharger would initiate options for compliance, including but not limited to development and implementation of:
 - i. alternative operational strategies; and
 - ii. discharge-specific water-effect ratio (WER) studies for adjustment of the copper and zinc effluent limitations.
5. This Order amends CDO No. R5-2008-0054 to add a compliance schedule for copper and zinc to allow additional time for the Discharger to conduct a site-specific WER study for copper and zinc, which may allow a relaxation of the water quality-based effluent limitations. The CDO is also amended to require a pollution prevention plan, and a treatment feasibility study should the site-specific WER not result in compliance with the California Toxics Rule water quality criteria for copper and zinc.
6. Issuance of this Order is exempt from the provisions of the California Environmental Quality Act (Public Resources Code section 21000, et seq.), in accordance with California Water Code (CWC) section 13389 and sections 15061(b)(3) and 15321 (a)(2), Title 14, of the California Code of Regulations (CCR).
7. The Central Valley Water Board has notified the Discharger and interested agencies and persons of its intent to amend the Time Schedule Order for this discharge and has provided them with an opportunity to submit their written views and recommendations.
8. Any person aggrieved by this action of the Central Valley Water Board may petition the State Water Board to review the action in accordance with CWC section 13320 and CCR, title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date that this Order becomes final, except that if the thirtieth day following the date that this Order becomes final falls on a Saturday, Sunday, or state holiday (including mandatory furlough days), the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet at: http://www.waterboards.ca.gov/public_notices/petitions/water_quality or will be provided upon request.

IT IS HEREBY ORDERED THAT:

Cease and Desist Order No. R5-2008-0054 (NPDES No. CA008956) is amended as shown in underline/strikeout format in Attachment 1 to this Order.

I, PAMELA C. CREEDON, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on XX March 2010.

PAMELA C, CREEDON, Executive Officer

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION**

**ORDER NO. R5-2008-0054-01
As Amended by Order No. 2010-XXXX**

**REQUIRING
CITY OF PLACERVILLE
HANGTOWN CREEK WATER RECLAMATION FACILITY
EL DORADO COUNTY**

**TO CEASE AND DESIST
FROM DISCHARGING CONTRARY TO REQUIREMENTS
AND TO COMPLY WITH REQUIREMENTS PRESCRIBED IN ORDER NO. R5-2008-0053
(NPDES NO. CA0078956)**

The California Regional Water Quality Control Board, Central Valley Region (hereafter Regional Water Board) finds:

1. On 16 March 2001, the Regional Water Board adopted Waste Discharge Requirements (WDRs) Order No. 5-01-045 (renewing NPDES No. CA0078956) prescribing waste discharge requirements for the City of Placerville (hereafter Discharger) Hangtown Creek Wastewater Reclamation Facility in El Dorado County.
2. WDRs Order No. 5-01-045 contained the following:
 - a. Effluent Limitation No. B.1, which required, in part, the following:

Constituents	Units	Effluent Limitations			
		Monthly Average	Daily Average	7-Day Median ¹	Daily Maximum
Nitrate ⁴	mg N/L	10	--	--	13
	lbs/day ³	192	--	--	250
Turbidity ⁴	NTU	--	2	--	5
Total Coliform	MPN/100 mL	--	--	2.2	23
¹ 7-Day Median based on previous seven daily samples. The Effluent Limitation 7-Day Median is not in effect until 16 March 2003. See Provision G.5 for details. A 30-day Median of 2.2 MPN/100 ml will apply until the 7-Day median limit takes effect. ³ Based upon a design treatment capacity of 2.3 mgd. ⁴ Effluent Limitations for nitrates and turbidity are not in effect until 16 March 2003. See Provision G.5 for details.					

- b. Receiving Water Limitation No. E.9. stated, in part;

“The discharge shall not cause the following in the receiving water.”

“9. The ambient temperature to increase more than 5 °F.”

- c. Provision G.5 stated, “New Effluent Limitations for turbidity, nitrates, and total coliform have been included in this Order. To comply with these limits, it will be

necessary for the Discharger to modify the existing treatment facility” and included a compliance schedule necessary for the Discharger to meet the new effluent limitations for turbidity, nitrates, and total coliform organisms by 16 March 2003. On 31 January 2003, the Regional Water Board extended the compliance date to 16 March 2006.

3. On 16 March 2001, the Regional Water Board adopted Cease and Desist Order (CDO) No. 5-01-046. CDO No. 5-01-046 included a compliance schedule to complete an additional study of the temperature effects in Hangtown Creek, implement corrective measures, and comply with the receiving water limitation for temperature by 15 January 2006. On 31 January 2003, the Regional Water Board extended the compliance date to 16 March 2006.
4. On 25 April 2008, the Regional Water Board adopted WDRs Order No. R5-2008-0053 (NPDES No. CA0078956), prescribing renewed WDRs for the Discharger.
5. WDRs Order No. R5-2008-0053, Section IV.A.1.a. contains effluent limitations that read, in part, as follows:

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Total Nitrate + Nitrite (as N)	mg/L	10	--	43	--	--
	lbs/day ¹	192	--	250	--	--
Copper, Total Recoverable	ug/L	3.95	--	5.41	--	--
Zinc, Total Recoverable	ug/L	36.2	--	55.1	--	--

¹ Based on the Average Dry Weather Flow of 2.3 mgd.

6. WDRs Order No. R5-2008-0053, Sections IV.A.1.e. and f. contains effluent limitations that read, in part, as follows:

- e. **Turbidity:** Effluent turbidity shall not exceed:
 - i. 2 NTU, as a daily average; and
 - ii. 5 NTU, more than 5% of the time within a 24-hour period.
- f. **Total Coliform Organisms:** Effluent total coliform organisms shall not exceed:
 - i. 2.2 most probable number (MPN) per 100 mL, as a 7-day median;

7. WDRs Order No. R5-2008-0053, Section V.A.2.b contains Interim Effluent Limitations for copper and zinc as follows:

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Max. Daily	Inst. Min.	Inst. Max.
Copper (Total Recoverable)	ug/L	--	--	13.4	--	--
Zinc (Total Recoverable)	ug/L	--	--	125	--	--

78. WDRs Order No. R5-2008-0053, Section V.A.15. contains receiving water limitations that read, in part, as follows:

“The discharge shall not cause the following in Hangtown Creek:

- “15. **Temperature:** The annual average ambient temperature to be increased by more than 5°F and the discharge to cause exceedance of the following limitations in Hangtown Creek:*

Dates	Instantaneous Maximum	Weekly Average
1 December through 30 April	--	58 °F
1 May through 31 May	--	67 °F
1 June through 15 October	77 °F	72 °F
16 October through 30 November	--	67 °F

89. The Discharger has been unable to comply with the compliance schedule for total nitrate plus nitrite, total coliform organisms, and turbidity in WDRs Order No. 5-01-045 as well as the compliance schedule for meeting receiving water temperature limitations prescribed in CDO No. 5-01-046. The Discharger remains in non-compliance with WDRs Order No. R5-2008-0053 Final Effluent Limitations IV.A.1.a. for total copper, total zinc, total nitrate plus nitrite, IV.A.1.e.i. and ii. for turbidity, and IV.A.1.f.i. for total coliform organisms as discussed in Finding 5, and with Receiving Water Limitations V.A.15. for temperature, as discussed in Finding 6. The delay in meeting these requirements has primarily been due to a construction delay resulting from the State Revolving Fund (SRF) temporary funding suspension for all eligible projects. SRF funding was restored enabling the discharger to commence construction on 2 April 2006.
910. On 31 August 2007, in its “Hangtown Creek Water Reclamation Facility Supplemental Infeasibility Report,” the Discharger projected it would complete construction of the facility improvements on 28 February 2009. The Discharger requested the final compliance date be May 2010 coincident with the SRF Project Performance and Certification period that requires the loan recipient, after one year of operation, to certify that the project meets the project performance standards (*Policy For Implementing the State Revolving Fund For Construction of Wastewater Treatment Facilities, XVIII.B.*). The Project Performance and Certification Period is not the same as the normal start-up time period such as described in CWC section 13385(j)(1)(D)(i) providing protection from Mandatory Minimum Penalties. This Order includes provisions, subsequent to construction completion, for a 90 day period of adjusting or testing for operation of a new or reconstructed wastewater treatment unit that relies on a biological treatment process. This time period is consistent with a normal start-up time period such as described in CWC section 13385(j)(1)(D)(i).

11. As required in WDR Order No. R5-2008-0053, in August 2008, the Discharger submitted a Pollution Prevention Plan pursuant to CWC section 13263.3 for several constituents including copper and zinc.
12. On 2 October 2009, the Discharger submitted an infeasibility report and request for compliance schedule extensions for copper and zinc. The Discharger reports that copper and zinc can originate from several sources, including domestic water supplies, domestic and non-domestic wastewater, infiltration/inflow, sediment, and the wastewater treatment processes. The wastewater collection system receives wastewater from residential and commercial users. There are no significant industrial users. The Discharger proposes the following activities to address permit compliance for copper and zinc:
 - a. Continued Treatment Plant Performance Testing and Optimization. The Facility requires 12 months of performance testing to optimize the treatment processes and determine the effect of the improvements on effluent quality.
 - b. Additional Effluent Quality Monitoring and Data Evaluation. Additional monitoring throughout all seasons is needed to confirm effluent concentrations and pollutant sources for copper and zinc and determine whether additional operations or treatment modifications are needed to comply with limitations.
 - c. Compliance Response Planning and Implementation. If necessary, the Discharger would initiate options for compliance, including but not limited to development and implementation of:
 - i. alternative operational strategies; and
 - ii. discharge-specific water-effect ratio (WER) studies for adjustment of the copper and zinc effluent limitations.

Mandatory Minimum Penalties

- ~~40~~13. California Water Code (CWC) Section 13301 states, in part: *"When a regional board finds that a discharge of waste is taking place, or threatening to take place, in violation of requirements or discharge prohibitions prescribed by the regional board, or the state board, the board may issue an order to cease and desist and direct that those persons not complying with the requirements or discharge prohibitions (a) comply forthwith, (b) comply in accordance with a time schedule set by the Board, or (c) in the event of a threatened violation, take appropriate remedial or preventive action."*
- ~~44~~14. In accordance with CWC section 13385(j)(3)(B)(i), the Regional Water Board finds that the Discharger is not able to comply consistently with Final Effluent Limitations IV.A.1.a. for total copper, total zinc, and total nitrate plus nitrite (as N), IV.A.1.e.i. and ii. for turbidity, IV.A.1.f.i. for total coliform organisms, and Receiving Water Limitations V.A.15. for temperature. The schedules for completing the actions necessary to achieve full compliance exceed the 16 March 2006 compliance date in WDRs Order No. 5-01-045 and CDO No. 5-01-046. New compliance schedules are necessary for all effluent

limitations discussed above. These limitations are new requirements that became applicable to the Order after the effective date of adoption of the WDRs, and after 1 July 2000 for which new or modified control measures are necessary in order to comply with the limitations, and the new or modified control measures cannot be designed, installed, and put into operation within 30 calendar days.

4215. CWC section 13385(h) and (i) require the Regional Water Board to impose mandatory minimum penalties (MMPs) upon dischargers that violate certain effluent limitations. The Discharger has accrued significant MMPs for violations of WDRs Order 5-01-045 Effluent Limitations B.1. since 1 April 2006, and would continue to accrue penalties for violations of WDRs Order R5-2008-0053 pending completion of its compliance project. However, CWC section 13385(j) exempts certain violations from the mandatory minimum penalties *"where the waste discharge is in compliance with either a cease and desist order issued pursuant to Section 13301 or a time schedule order issued pursuant to Section 13300, if all the [specified] requirements are met."*
4316. By statute, a Cease and Desist Order or Time Schedule Order may provide protection from MMPs for no more than five years. Compliance with this Order exempts the Discharger from mandatory penalties for violations of Final Effluent Limitations IV.A.1.a. for total nitrate plus nitrite, IV.A.1.e.i. and ii. for turbidity, and IV.A.1.f.i for total coliform organisms, in accordance with CWC Section 13385(j)(3), until 1 June 2009. Compliance with this Order also exempts the Discharger from mandatory penalties for violations of Final Effluent Limitations IV.A.1.a. for total copper and total zinc until 1 March 2015. CWC section 13385(j)(3) requires the Discharger to prepare and implement a pollution prevention plan pursuant to CWC section 13263.3. Therefore, a pollution prevention plan will be necessary for total copper, total zinc, total nitrate plus nitrite, turbidity, and total coliform organisms in order to reduce the effluent concentrations effectively by source control and treatment plant operational measures.
4417. Since the time schedules for completion of actions necessary to bring the waste discharge into compliance exceeds 1 year, this Order includes interim requirements and dates for their achievement. The time schedules do not exceed 5 years.
4518. The compliance time schedule in this Order includes interim effluent limitations for total copper, total zinc, total nitrate plus nitrite, turbidity, and total coliform organisms. Interim effluent limitations typically consist of a maximum daily effluent concentration derived using sample data provided by the Discharger. In developing the interim limitations, when there are ten sampling data points or more, sampling and laboratory variability is accounted for by establishing interim limits that are based on normally distributed data where 99.9% of the data points will lie within 3.3 standard deviations of the mean (*Basic Statistical Methods for Engineers and Scientists, Kennedy and Neville, Harper and Row*). Calculations were based upon Discharger self-monitoring data for the period 1 June 2004 through 30 June 2007. The Discharger only tested for nitrate and did not test for nitrite. Therefore the interim limitations for total nitrate plus nitrite are based upon the calculations for nitrate. For nitrate, the mean is 13.4 mg/L, the standard deviation is 4.1 mg/L, and the interim daily maximum limitation is 27 mg/L which also is

the observed daily maximum effluent concentration. For turbidity, the average is 1.5 NTU, the standard deviation is 0.94 NTU, and the interim 30-day average limitation is 5 NTU. For total coliform organisms, this Order retains as an interim limitation the <2.2 MPN/100 mL monthly median from WDRs Order 5-01-045. Compliance with Effluent Limitations IV.A.1.a. for turbidity and IV.A.1.a, and IV.A.1.f.ii. for total coliform organisms are not a part of this Order and these limitations also remain in effect.

4619. The Regional Water Board finds that the Discharger can undertake source control and treatment plant operational measures to maintain compliance with the interim limitations included in this Order. Interim limitations are established when compliance with the final effluent limitations cannot be achieved by the existing discharge. Discharge of constituents in concentrations in excess of the final effluent limitations, but in compliance with the interim effluent limitations, can significantly degrade water quality and adversely affect the beneficial uses of the receiving stream on a long-term basis. The interim limitations, however, establish an enforceable ceiling concentration until compliance with the effluent limitation can be achieved.

4720. Section 13267(b)(1) of the California Water Code provides that: *"In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge, waste outside of its region that could affect the quality of waters within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports."*

Other Regulatory Requirements

4821. Issuance of this Order is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 21000, et seq.), in accordance with California Water Code (CWC) Section 15321 (a)(2), Title 14, California Code of Regulations.

4922. On 25 April 2008, in Rancho Cordova, California, after due notice to the Discharger and all other affected persons, the Regional Water Board conducted a public hearing at which evidence was received to consider a Cease and Desist Order under CWC Section 13301 to establish a time schedule to achieve compliance with waste discharge requirements.

~~2023~~. Any person adversely affected by this action of the Regional Water Board may petition the State Water Resources Control Board to review this action in accordance with Title 23, CCR Sections 2050-2068. The petition must be received by the State Water Resources Control Board, Office of the Chief Counsel, P.O. Box 100, Sacramento, CA 95812-0100, within 30 days of the date on which this action was taken. Copies of the law and regulations applicable to filing petitions are available at www.waterboards.ca.gov/water_laws/index.html and also will be provided upon request.

IT IS HEREBY ORDERED that Cease and Desist Order No. 5-01-046 is rescinded, and, pursuant to CWC Sections 13301 and 13267:

- The City of Placerville shall comply with the following time schedule to ensure compliance with Order No. R5-2008-0053 Final Effluent Limitations Section IV.A.1.a. for total nitrate plus nitrite, Section IV.A.1.e.i. and ii. for turbidity, Section IV.A.1.f.i. for total coliform organisms, and Receiving Water Limitations Section V.A.15. for receiving water temperature:

Task	Compliance Date
Submit Pollution Prevention Plan (PPP) pursuant to CWC section 13263.3 for total nitrate plus nitrite, turbidity, and total coliform organisms. ¹	60 Days from the effective date of WDR Order R5-2008-0053
Progress Reports	1 June, annually, until final compliance
Complete plant upgrade construction project	1 March 2009
Achieve full compliance with final effluent limitations IV.A.1.a. for total nitrate plus nitrite, IV.A.1.e.i. and ii. for turbidity, and IV.A.1.f.i. for total coliform organisms.	1 June 2009
Achieve full compliance with Receiving Water Limitations V.A.15. for receiving water temperature.	1 October 2009
¹ The PPP shall be prepared and implemented for effluent limitations for total nitrate plus nitrite, turbidity, and total coliform organisms, as appropriate, and shall meet the requirements specified in CWC section 13263.3.	

- The City of Placerville shall comply with the following time schedule to ensure compliance with Order No. R5-2008-0053 Final Effluent Limitations Section IV.A.1.a. for copper and zinc:

Task	Compliance Date
<u>Submit WER Study Work Plan</u>	<u>31 May 2010</u>
<u>Complete WER Study</u>	<u>28 February 2011</u>
<u>Submit WER Study Report</u>	<u>31 May 2011</u>
<u>Progress Reports</u>	<u>1 June, annually, until final compliance</u>
<u>Full Compliance</u>	<u>1 March 2015</u>

23. For the compliance schedules required by this Order, the Discharger shall submit to the Regional Water Board on or before each compliance due date, the specified document or a written report detailing compliance with the specific date and task. If reporting noncompliance, the reasons for such noncompliance shall be stated and include an estimate of the date when the Discharger will be in compliance. The Discharger shall notify the Regional Water Board by letter when it returns to compliance with the time schedule.
34. The following interim effluent limitations for total nitrate plus nitrite, turbidity, and total coliform organisms shall be effective immediately, and shall remain in effect through 31 May 2009, or when the Discharger is able to come into compliance with Final Effluent Limitations in Order No. R5-2008-0053, Section IV.A.1.a. for total nitrate plus nitrite, Section IV.A.1.e.i. and ii. for turbidity, and Section IV.A.1.f.i. for total coliform organisms, whichever is sooner.

Parameter	Units	30-Day Average Limitation	30-Day Median Limitation	Daily Maximum Limitation
Total Nitrate plus Nitrite (as N)	mg/L	--	--	27
	lbs/day ¹	--	--	518
Turbidity	NTU	5	--	--
Total Coliform Organisms	MPN/100 mL	--	2.2	--
¹ Based upon a design treatment capacity of 2.3 mgd.				

5. The following interim effluent limitations for total copper and total zinc shall remain in effect through 28 February 2015, or when the Discharger is able to come into compliance with Final Effluent Limitations in Order No. R5-2008-0053, Section IV.A.1.a. for total copper and total zinc, whichever is sooner.

Parameter	Units	MEC	Mean	Range	Interim Effluent Limitation – Max Daily
Copper, Total Recoverable	µg/L	9.7	3.8	0.6 to 9.7	13
Zinc, Total Recoverable	µg/L	69	47	28 to 69	125

46. If, in the opinion of the Executive Officer, the City of Placerville fails to comply with the provisions of this Order, the Executive Officer may apply to the Attorney General for judicial enforcement or issue a complaint for Administrative Civil Liability.
57. Any person signing a document submitted under this Order shall make the following certification:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my knowledge and on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for

submitting false information, including the possibility of fine and imprisonment."

I, Pamela C. Creedon, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on 25 April 2008, and amended on XX March 2010, by Order No. R5-2010-XXXX.

PAMELA C. CREEDON, Executive Officer